

AMENDMENTS TO THE CLAIMS

Claims 1-41 (Canceled)

Claim 42 (Currently Amended): A dye-comprising aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61, wherein the polymeric matrix formed from the copolymerized monomers A, B and, optionally, C and D ~~is composed of~~ comprises

- from 50 to 99.5% by weight of monomers A,
- from 0.5 to 50% by weight of monomers B,
- from 0 to 30% by weight of monomers C, and
- from 0 to 30% by weight of monomers D.

Claim 43 (Currently Amended): A dye-comprising aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61, comprising at least one noncopolymerizable dye, wherein the polymer matrix comprises, in copolymerized form, at least one compound selected from the monomers C and the compounds D, in amounts of $> 0.1\%$ by weight, based on the polymer matrix.

Claim 44 (Currently Amended): A dye-comprising aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61, comprising at least one copolymerizable oil-soluble dye having at least one copolymerizable, ethylenically unsaturated double bond which does not belong to the chromophore of the dye.

Claim 45 (Currently Amended): A dye-comprising aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61, wherein the polymer particles have a monomodal particle size distribution with an average particle diameter d_z in the range from 100 to 400 nm.

Claim 46 (Currently Amended): A dye-comprising aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61, wherein the monomers A copolymerized in the polymer particles comprise

- from 0.5 to 30% by weight of at least one monomer A1 having a water solubility > 60 g/l (at 25°C and 1 atm), based on the total monomer amount, and
- from 70 to 99.5% by weight of at least one monomer A2 having a water solubility < 60 g/l (at 25°C and 1 atm), based on the total monomer amount.

Claim 47 (Previously Presented): A dye-comprising aqueous polymer dispersion as claimed in claim 46, wherein the monomers A2 are selected from monoethylenically unsaturated cationic monomers.

Claim 48 (Previously Presented): A dye-comprising aqueous polymer dispersion as claimed in claim 46, wherein the monomers A2 are selected from monoethylenically unsaturated monomers which have at least one acid group, optionally in deprotonated form.

Claim 49 (Currently Amended): A dye-comprising polymer powder obtained by drying an aqueous polymer dispersion as claimed in ~~claim 41~~ claim 61.

Claim 50 (Currently Amended): An aqueous dye-comprising formulation comprising:

i) at least one dye-comprising polymer which is present in the formulation in the form of dispersed polymer particles ~~and is selected from the polymers present in the aqueous, dye-comprising polymer dispersion as claimed in claim 41, and the polymer powder as claimed in claim 49~~ , where the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and, furthermore, comprise at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one further, polymerization-active compound which is selected from

- monoethylenically unsaturated monomers B having a water solubility < 0.01 g/l,

- monomers C which have at least two nonconjugated, ethylenically unsaturated double bonds,

- crosslinking monomers D, and

- copolymerizable dyes having at least one copolymerizable, ethylenically unsaturated double bond which does not belong to the chromophore of the dye, where

the amount of dye in the polymer particles is at least 3% by weight, based on the polymerized monomers, and

ii) customary auxiliaries.

Claim 51 (Previously Presented): A formulation as claimed in claim 50, additionally comprising at least one water-soluble polymer PW.

Claim 52 (Previously Presented): A formulation as claimed in claim 51, wherein the polymer PW has cationic groups.

Claim 53 (Currently Amended): A formulation as claimed in claim 52, wherein the polymer PW is a copolymer ~~which is composed of~~ comprising at least one monoethylenically unsaturated, cationic monomer, ~~especially a monomer having at least one quaternary ammonium or immonium group,~~ and at least one further, neutral monomer.

Claim 54 (Currently Amended): A formulation as claimed in claim 53, wherein the polymer PW is selected from:

- copolymers of 1-vinylpyrrolidone with 1-vinyl-3-alkylimidazolium salts,
- copolymers of 1-vinylpyrrolidone with methacryloyloxyethyltrialkylammonium salts, and
- terpolymers of vinylpyrrolidone and vinylcaprolactam with 1-vinyl-3-alkylimidazolium salts.

Claim 55 (Previously Presented): A formulation as claimed in claim 51, wherein the polymer PW has acidic functional groups and/or anionic functional groups.

Claim 56 (Currently Amended): A formulation as claimed in claim 55, wherein the polymer PW is a copolymer ~~composed of~~ comprising

- at least one monoethylenically unsaturated monomer MA selected from monomers having at least one acid group and salts thereof, and
- at least one further, neutral monomer.

Claim 57 (Currently Amended): A formulation as claimed in claim 55, wherein the polymer PW is selected from

- homopolymers and copolymers of 2-acrylamido-2-methylpropanesulfonic acid, copolymers of acrylic acid and/or of methacrylic acid with styrene,
- copolymers of acrylic acid and/or of methacrylic acid with C₁-C₁₀-alkyl esters of acrylic acid and/or of methacrylic acid,
- copolymers of maleic acid or of maleic anhydride with olefins, ~~especially with diisobutene,~~
- the formaldehyde condensates of an arylsulfonic acid, ~~especially a naphthalenesulfonic acid~~ and salts thereof.

Claim 58 (Currently Amended): A dye-comprising formulation as claimed in claim 50, which is an ink, ~~especially for the inkjet process.~~

Claim 59 (Currently Amended): An aqueous pigmented formulation comprising

i) at least one dye-comprising polymer which is present in the formulation in the form of dispersed polymer particles ~~and is selected from the polymers of the aqueous dye-comprising polymer dispersion as claimed in claim 41 and from the polymer powder as claimed in claim 49~~, where the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and, furthermore, comprise at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one further, polymerization-active compound which is selected from

- monoethylenically unsaturated monomers B having a water solubility < 0.01 g/l.,

- monomers C which have at least two nonconjugated, ethylenically unsaturated double bonds,

- crosslinking monomers D, and

- copolymerizable dyes having at least one copolymerizable, ethylenically unsaturated double bond which does not belong to the chromophore of the dye, where

the amount of dye in the polymer particles is at least 3% by weight, based on the polymerized monomers, and ~~whose~~ where the oil-soluble dye comprises at least one optical brightener,

ii) at least one dye-free, film-forming water-insoluble polymer which ~~is composed of~~ comprises ethylenically unsaturated monomers, in the form of its aqueous dispersion,

iii) at least one inorganic white pigment alone or together with an inorganic filler, and

iv) auxiliaries.

Claim 60 (Previously Presented): A formulation as claimed in claim 59, the formulation being a paper coating slip.

Claim 61 (New): A dye-comprising aqueous polymer dispersion in which the polymer particles have an average diameter $d_z < 1000$ nm and comprise at least 0.01% by weight of at least one oil-soluble dye in molecularly disperse form and which, furthermore, comprises at least one monoethylenically unsaturated monomer A having a water solubility > 0.01 g/l and at least one further, polymerization-active compound which is selected from

- monoethylenically unsaturated monomers B having a water solubility < 0.01 g/l,
- monomers C which have at least two nonconjugated, ethylenically unsaturated double bonds,
- crosslinking monomers D, and
- copolymerizable dyes having at least one copolymerizable, ethylenically unsaturated double bond which does not belong to the chromophore of the dye, wherein

the amount of dye in the polymer particles is at least 3% by weight, based on the polymerized monomers.

Claim 62 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 61, wherein the amount of dye in the polymer particles is at least 5% by weight, based on the polymerized monomers.

Claim 63 (New): A dye-comprising aqueous polymer dispersion as claimed in claim 61, wherein the amount of dye in the polymer particles is in a range of from 5 to 30% by weight, based on the polymerized monomers.